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DECEMBER COVER

Girls in Burford Hall at Indiana State College cooperate to create the holiday lighting effects for the cover picture of the December Journal.

EDITORIAL

A Look at "New Frontiers" in Education

It is fashionable to make some reference to the coming decade as one that is replete with "new frontiers." In keeping with this trend, we pause to give some thought to new frontiers in education. Here, too, we find discernible evidence of new trends that are evolving; at least there are signs that older practices are being given new labels or new twists. What are some of these developments that we can expect within the next few years?

Undoubtedly we can expect a great increase in the utilization of mass media of communication. Increasing enrollments, teacher shortages, inadequate facilities, and demands for quality instruction have all combined to give impetus to this development. With the establishment of educational television channels and advances in closed-circuit techniques, the expansion of the use of mass media is inevitable. From all indications, this trend can be expected to gain wide acceptance in the near future.

There is a likelihood that we shall see a new approach to and a greater emphasis upon individualized instruction. The teaching machine, programmed learning, teaching textbooks, and other devices of self instruction are in the experimental stage and there is considerable evidence that such devices will gain in popularity.

We can further expect to witness greater emphasis upon and renewed interest in variations of grouping of pupils for instructional purposes. The current stress on providing for the superior and talented students will bring forth new approaches for identifying and placing the students in situations most advantageous for their development. On the other end of the scale, the trend toward ungraded types of grouping might well be

expected to expand. The so-called ungraded primary system, which originated at the lower elementary level, is quite likely to be the forerunner of ungraded intermediate levels, ungraded upper elementary levels, and so on.

Unquestionably there will be the perennial innovations in curricular developments. The core approach, the content of general education, the practical versus the theoretical or the cultural, and so on, will inevitably become part and parcel of the new frontiers in education of the "sixties."

Thus, it goes without saying that the decade ahead will offer many new developments in education. As we explore these new frontiers and as these innovations become generally accepted (there's no guarantee that they will be), should we not give some thought to the outcomes? Sometimes, as we become engaged in new practices, we lose sight of the goals we are really striving for. Something is not necessarily worthwhile simply because it is new or different. The ultimate test of any process or device is whether or not it achieves the purposes or objectives for which it is designed. If desired ends are not attained, the means to those ends are worthless.

As we approach the new frontiers of the years ahead, top priority must be given to a hard deliberate look at the goals of education. If we can come to an agreement as to the basic purposes and values of education, then the way will be cleared as we enter the new frontiers of our profession.

CHARLES HARDAWAY
Editor

A Comparison of Listening Comprehension and Reading Comprehension in Second and Third Grades

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(Summary of an Advanced Thesis presented to the faculty of the School of Graduate Studies, Indiana State College, in partial fulfillment of the requirements for the Advanced Degree in Education.

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•UNTIL QUITE recently, the teaching of listening has been neglected. The improvement of listening ability was left to chance and the maturity of the individual. While listening continues to be the most neglected of the communication skills, there is a growing awareness of the need for teaching listening. The realization of the large amount of time spent in listening, both in school and out, has done much to awaken interest. Research has indicated that listening can be improved when the skills of listening are taught.

This study was made in the Brazil Public School System during the 1960-61 school year in grades two and three. After necessary deletions were made, complete test scores were recorded for 124 second grade and 130 third grade pupils.

The purpose of the study was to compare listening comprehension with reading comprehension, mental age, sex, cultural background, and the teacher's evaluation of the child's ability to listen. Also, the study sought to compare reading comprehension with mental age, sex, and cultural background. The comparison of the mental age of the child with his cultural background was also made.

As a part of the established testing program in the Brazil Public School System, each child in grades two and three was given the *California Achievement Test* by his classroom teacher. Each third grade pupil was given the *California Test of Mental Maturity* by the building principal. To secure mental age and intelligence scores for second grade pupils, the writer gave the *California Test of Mental Maturity* to each second grade child. In addition, a listening comprehension test was given to each second and third grade child by the writer. A data sheet on which the teacher rated each child's scholastic ability, personality adjustment, and listening ability supplied additional information.

The teacher further indicated the present occupational category of the father or guardian. The occupation of the father or guardian was used in this study to indicate the cultural background of the child.

After data secured from all three tests and the teacher's appraisal sheet had been tabulated and analyzed, the following findings were noted:

1. Chronological ages of the test group ranged from 7 years to 9 years and 11 months with a mean of 7 years and 8 and a median of 7 years and 11 months in second grade. The distribution of ages in third grade ranged from 7 years and 6 months to 11 years and 5 months with a mean age of 8 years and 5 months and a median age of 8 years and 9 months.

2. Mental age distribution covered a wider range than did chronological age. The low in second grade was 5 years and the high was 10 years and 11 months with a mean mental age of 7 years and 10 months and a median of 7 years and 9 months. The range of mental ages in third grade was from 5 years and 6 months to 11 years and 11 months. Mean and median both were 9 years.

3. The test group was an "average" group in intelligence. Second grade scores ranged from 62 to 145 with a mean of 99.5 and a median of 98.7. The range of third grade scores was from 61 to 141 with a mean of 103.4 and a median of 103.6.

4. Total reading achievement scores indicated that nearly 42 per cent of the second grade group used in the study were not achieving at grade level. The mean was 2.1, median 2.2, and grade placement 2.1. Third grade total reading achievement ranged from 1.5 to 6.2. The mean was 3.6, the median was 3.9, and grade placement 3.1.

5. Listening test scores covered a range from 20 to 74 in second grade with a mean of 46.5 and a median of 46.4. Third grade listening scores ranged from 30 to 90 with a mean of 62.9 and a median of 63.7. While norms are unavailable for this test, the originator gave it to a group of comparable size. The mean for grade two was reported at 51.7 and the third grade mean was 66.1. It was also noted that the latter group had a higher mean intelligence. It was 109.4.

6. Nearly half of the number of fathers of second grade pupils in the study were unskilled, had no occupation, or were unemployed. Well over one-third of the number of fathers of third grade pupils were in the same occupational categories.

7. The majority of both second and third grade pupils were rated "average" by their teachers when home background, scholastic ability, personality adjustment, and listening ability were considered.

8. The coefficient of correlation between listening and reading was .45 in grade two and .70 in grade three.

9. The correlation coefficient between listening and mental age was .69 in grade two and .75 in grade three.

10. Between listening test scores and the teacher's evaluation of the child's listening ability was found a coefficient of correlation of .55 in both grades tested.

11. The coefficient of correlation between reading and mental age was .49 in second grade and .64 in third grade.

12. Listening ability and reading ability increased from grade two to grade three.

13. Neither sex showed marked superiority in either listening or reading ability at the primary level.

14. The occupation of the father bore only a weak relationship to the reading and listening ability of the child.

On the basis of the study and its findings, the following conclusions were drawn:

1. Listening ability has a strong relationship with reading ability.

2. Listening ability has a strong relationship with intelligence.

3. Reading ability has a strong relationship with intelligence.

4. There is a closer relationship between listening and chronological age at the third grade level than at the second grade level.

5. There is a closer relationship between listening and reading at the third grade level than at the second grade level.

6. Teachers' ratings of listening ability tend to agree with ratings secured from test scores.

7. Neither sex appears superior in listening or reading ability at the primary level.

8. The occupation of the father is not a reliable indicator of the listening ability or reading ability of the child.

9. Development of additional tests and testing materials for use at the primary level is necessary in order to give needed emphasis to listening.

As a result of the testing program carried out and the conclusions derived, the following recommendations are made:

1. More research is needed to develop a clearer understanding of the listening process and its inter-relationship with other traits.

2. Tests need to be developed and standardized for use at the primary level.

3. Further studies of reading difficulties need to be made to determine the degree to which children's reading problems stem from poor listening habits.

4. Additional research is necessary to determine whether hearing acuity affects listening ability.

5. Further research should explore the field of children's interest. Perhaps children do not listen because they have no interest in what they would hear if they did listen.

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Indiana Courts and Public School Curriculum

• WHAT HAVE the Indiana courts ruled when presented with cases in the areas of public school curriculum? There have been only five cases dealing with the curricular phase of the school program. This small number of cases and the mutual exclusiveness of the subject matter in each case emphasizes the importance of the basic principles of law which have been isolated in each of the cases decided by the Indiana Supreme Court.

The first of the cases was *Clark v. Haworth*¹; this case is not only a leading Indiana case, but is also a

leading case on the national scene when the question arises relative to where the responsibility for the public schools actually resides. This case arose over the right of the state to adopt textbooks on a statewide basis and to obtain them on the same basis. The decision states that the state, rather than the local school district, has been established by the Indiana Constitution as the basic school unit; and the state through the actions of the General Assembly can distribute the control of education through the state in any way that it sees fit. It is further stated that not only can the state distribute the powers as it sees fit, it can also redistri-

bute the powers at its discretion. In the same vein, prior action does not prevent later action. Because schools are a matter of state concern the legislature derives its control over the schools and the school affairs in the state from the stated and implied powers in the Indiana Constitution.

Few court cases have tested the power of the local school authorities to prescribe certain courses of study or rules related to curriculum. The first case² arose in LaPorte relative to the power of the local school authorities to enforce a rule requiring all pupils in high school to study and to practice music in a prescribed manner. The rule also required that the pupils provide themselves with a prescribed book. A suit to test the legality of the rule was initiated by a parent who contended that he had a right to direct the education of his son, completely disregarding the rule of the local school authorities if he saw fit. The local school authorities were upheld in their action of approving the suspension of the pupil by the principal. In rendering its decision, the court ruled that the nature of the wording by the regulation did not indicate a misuse of discretionary power by the local school authorities. The court also ruled that the parent had shown no satisfactory or sufficient excuse for not complying with the regulation and also had shown no legal grounds for having the child readmitted to the school. The court ruled that the parent and the child must subordinate themselves to the reasonable rules and regulations of the local school authorities.

In a case³ involving the Indianapolis Board of School Commissioners, the Indiana Supreme Court clarified the position of local school authorities in the area of interpretation of statutes. There was an existing statute at the time the case was filed which provided that whenever the parents or guardians of 25 or more children attending any school petitioned for the introduction of a foreign language into the schools, it would be the duty of the local school authorities to introduce the foreign language into the school as a part of the course of study, and to procure efficient teachers to teach the course. The parents of 112 children attending a certain elementary school filed a valid petition in ample time for consideration. The Indianapolis school authorities ruled that instruction in the foreign language (German) could be most efficiently pursued during the upper seven grades, and they did not provide the in-

struction petitioned by the parents or guardians of the 112 children attending the elementary school. The local authorities further contended that revenues would not permit expansion of instruction to other levels of the schools. The plaintiffs (parents or guardians of the children) pointed out that there were uncommitted funds in the budget, and that the local school authorities were providing instruction in certain optional subjects which could be omitted in favor of the petitioned instruction. The local school authorities placed an interpretation in the term "any school", referred to in the statute, which contended that it applied to any school in their entire school corporation; that is, the local school authorities had discretionary power relative to the school in which they would choose to install the instruction.

The court in its decision ruled that the local school authorities would have to provide for instruction in the petitioned language in the school attended by the children of the petitioners. The contention of the local school authorities relative to their lack of funds was dismissed because of the presence of additional uncommitted funds in the school budget. After ruling that the subject must be taught in the school attended by the children of the petitioners, the court stated that the local school authorities had the power to prescribe the manner and the extent of instruction, provided that the instruction was included as a branch of study in the schools attended by the children of the petitioners. In answering the contention that an unfair advantage was given to a certain language, the court refused to rule on the wisdom of the statute, leaving this within the province of the legislature. In a dissenting opinion the determination of the level on which the instruction was to be provided was contended to be within the discretionary powers of the local school authorities. This dissenting opinion stated that further dictation concerning the instruction in question would be usurpation of the power of the local school authorities to grade their schools and regulate the courses of study therein. The majority decision left the local school authorities with no course of action except to introduce the instruction in the school attended by the children of the petitioners and to provide the instruction for the children regardless of their age level.

In a case⁴ involving the Gary public schools two questions of special importance in the area of curriculum were presented and answered. The first question was concerned with the right of a pupil to obtain a transfer to another school to pursue a course not offered

¹The State, ex rel. Clark v. Haworth, School Trustee of Monroe Township, Howard County, 122 Ind. 462, 23 N.E. 946 (1890)

²The State ex rel. Andrew v. Webber et al., 108 Ind. 31, 8 N.E. 708 (1886).

³The Board of School Commissioners of the City of Indianapolis v. The State, ex rel. Sander, 129 Ind. 14, 28 N.E. 61 (1891).

⁴The State ex rel. Alberta Cheeks v. Wirt, Superintendent of Gary Schools, et al., 203 Ind. 121, 177 N.E. 441 (1931).

in the school he was attending at the time. The second question dealt with curricular offerings in the school presently being attended by the pupil as compared to the offerings in the school to which the pupil was requesting transfer. A group of pupils, including the pupil for whom the suit was instigated, attended a school offering the first ten grades at the beginning of the school year and were transferred to another school offering all twelve grades in late September. In mid-December these pupils were notified that they would attend their former school after the Christmas recess.

Mandamus action was initiated for the pupil in question so that she could gain admission to one of the four-year high schools in the city. In refusing the mandamus action, the court ruled for the local school authorities, and the decision was upheld by the higher court. The mandamus action on the transfer request was denied on the grounds that the school the child was attending, which offered the first two years of high school, rendered pupil privileges equal to those offered in the first two years of the four-year high schools to which the child was seeking transfer. However, the court did stipulate that the child would be entitled to transfer if the pursuance of the high school course required the completion of a specific course or courses which could not be obtained in the school which the pupil was presently attending, and if these courses could not be obtained at a later date.

The failure to offer the course in question (swimming) was not deemed to be sufficient by the court to justify transfer to the four-year high school. Swimming was looked on by the court as a physical activity for which some other activity could be substituted without interfering with the pupil's educational privileges. The court also pointed out that all of the high school program of a child did not have to be carried on under one roof, but could be offered at different sites if the pupil were not deprived of required educational opportunities in the operation.

The status of interscholastic athletes was the subject of a decision² involving a ruling of the Indiana High School Athletic Association relative to the eligibility of two boys transferring to Seymour, Indiana, from another state. The court did not deny that the boys in question had an undeniable right to attend the public schools in their district, but that right was deemed not to include participation in interscholastic activities; the latter was said to be subject to the rules and regulations of outside agencies which have the power to determine eligibility requirements.

Summary

These court decisions have established the following guide lines relative to the public schools in Indiana in general and to public schools curriculum in particular.

1. Schools are an affair of the state, and the legislature has complete control over school affairs.
2. Curriculum rules and regulations adopted by the local school authorities have been upheld by the courts when they were considered reasonable and just.
3. Local school authorities must follow the provisions of the statutes when the statutes prescribe a course of action for the local school authorities.
4. Pupils have the right to attend the public schools but do not have an inherent right to pursue a certain course in the schools when that course is an optional one or will be available to the student at a later stage in his school career.
5. Pupils do not have an inherent right to participate in interscholastic athletics, and extra-school agencies can determine the eligibility requirements and rules for participation in such activities.

²State ex rel. Indiana High School Athletic Association et al. v. Lawrence Circuit Court, 162 N.E. 2d 250 (1959)

Historical Review of Indiana Curriculum Statutes

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Introduction

• FOR NEARLY forty years after Indiana admission into the Union the General Assembly failed to enact legislation concerned with the curriculum to be provided in the Indiana public schools. Both the 1816 and

the 1851 Indiana Constitutions outlined the responsibility of the General Assembly in the area of public school curriculum. Rather than assuming a role of leadership, the General Assembly has tended to assume a restrictive or corrective role. Local school corporations

have had to take the initiative and seek enabling legislation when they wished to install new programs.

The framers of the Indiana Constitution recognized the close relationship between education and free government when they stated that it was the duty of a free government "to encourage by all suitable means moral, intellectual, scientific, and agricultural improvement" (The provisions relating to moral improvement were added in the 1851 Constitution.). However, it was not until 1865 that the General Assembly enacted legislation outlining the instructional areas to be used in achieving development in these areas.

During the period from 1816 until 1865 public school legislation was more concerned with providing the structure for the public schools than with outlining instructional areas. The General Assembly in its 1820-21 Session enacted a joint resolution directing a committee to draft a bill providing for a general system of education. It was not until two sessions later that the measure was enacted which outlined the steps to be taken in establishing a system of common schools. This 1824 statute and subsequent statutes for the following twenty years were permissive in nature. They outlined the steps to be used in establishing schools if local governmental units so desired. The only portions of these statutes pertaining to curriculum were the provisions dictating the length of the minimum term and those provisions outlining the qualifications of teachers. A number of statutes directed that the teachers to be used in the schools were to have demonstrated the ability to teach reading, writing, arithmetic, and the English language. This was the only mention of curricular matters in any of the statutes prior to 1865.

Curricular Statutes After 1865

Chapter 1 of the Acts of 1865 dictated that instruction would be provided in seven areas (orthography, reading, writing, geography, arithmetic, English grammar, and good behavior). Four years later physiology and history of the United States were added to the list. This statute also contained an example of the effect of negative legislation in its provision that the Bible was not to be excluded from the public schools. Other provisions of the statute stipulated that all schools were to be taught an equal length of time and that all were to be taught in the English language. Local school authorities were authorized to exceed the required program and offer instruction in both other languages and other instructional areas.

After establishing the system of schools and determining the instructional content in these schools, the next action of the General Assembly was to authorize industrial or manual training and education. The first

legislation in this area was passed in 1891 and applied to cities having a population of one hundred thousand or more. In 1903, the authorization was extended to cities having a population between 50,000 and 100,000.

These earlier statutes were followed by a general statute enacted in 1913 which authorized local school authorities in all sizes of school corporations to provide instruction in vocational areas. Provisions were made in this statute for pupils who worked and were only part-time students. This latter situation has been the subject of additional legislation in various attempts to make satisfactory adjustments for the part-time student who works in a school-supervised vocational program.

An unusual aspect of the 1913 vocational statute and its amendatory acts was the cooperative system created in its provisions. County agents and lay advisory committees were charged with the duty to counsel with and advise the local school authorities as the program developed.

The first of a series of statutes concerned with alcoholic drinks and narcotics was passed in 1895. This first statute authorized oral instruction in the two areas and in their effect upon the human body. Pupils were not required to have textbooks. Later statutes enacted in 1933, 1935, and 1947, required that the instruction be provided in specific grades in the schools, and that the adopted textbooks in hygiene and physiology contain a section devoted to the nature of alcoholic drinks, tobacco, sedatives, and narcotics, and their effects upon the human body. The State Board of Education was directed to prepare a course of study for the instruction required in the statute. This assistance was rendered to assist the schools in providing the instruction for the pupils. An amendment enacted in 1935 added two years of high school to the levels in the school which were to be provided with the instruction; this action supplemented the 1933 statute which had directed that the instruction be provided in grades four, five, six, seven and/or eight. A later 1947 statute dealing with this area stipulated that the nature and effects of alcoholic drinks, tobacco, sedatives, and narcotics be taught in each of the grades four through eight. The portion of this statute concerned with instruction on the high school level was permissive in nature; however, the Indiana State Board of Education was directed to provide a course of study in the area for high school pupils. The statutes prescribing instruction in this area are especially interesting since they cover a period of over fifty years, and since new statutes have been written on two occasions rather than attempting to amend previous statutes.

The statutes enacted from 1865 through 1903 com-

prise the second phase in the development of the Indiana public schools. Those enacted prior to 1865 were more concerned with determining the governmental agent responsible for the operation of the schools, while those enacted between 1865 and 1903 began to deal with the instructional areas to be provided in the schools.

Statutes of the Twentieth Century

The internal organization of the schools was the major concern of Chapter 191 of the Acts of 1907. The first eight years were defined as the elementary school, with the last four years comprising the high school. In Chapter 1 of 1865 which has been previously discussed, the General Assembly had outlined the instructional areas to be provided in the common schools. In this 1907 statute the General Assembly stipulated the subjects to be taught in the high schools of the state; they were as follows: mathematics—commercial arithmetic, algebra, geometry; history—United States, ancient, medieval, or modern; geography—commercial or physical, physical; English—composition, rhetoric; literature—English, American; language (foreign)—Latin or German; science—biology, physics, or chemistry; civil government—general, state; drawing; music. The word "physical" following the comma in the geography was deleted by a 1919 amendment. This same amendment also expressly forbade the teaching of the German language in the schools, and authorized the substitution of any other foreign language. This prohibition concerning the German language was deleted in a later 1923 amendment.

Not until twelve years after the 1907 statute, in 1919, did the General Assembly enact permissive legislation relative to the junior high school and also the kindergarten. Local school authorities were authorized to operate junior high schools of two or three years in length for those pupils who had completed the sixth year of the elementary school. Rather than outline the specific subjects to be taught in the junior high schools, the statute placed this within the powers of the state-level education agencies. Further delegation of powers by the General Assembly was evidenced in the statute authorizing kindergartens. In this statute local school authorities were permitted to provide free kindergarten instruction. The statute empowered the local school authorities to make the discretionary decisions concerning the creation and maintenance of the kindergarten.

The two final steps in completing the programs permitted in the public schools came with the passage of legislation in the 1943 session which authorized the State Board of Education and the State Superintendent

of Public Instruction to formulate a program for adult education, and with the passage of another act which authorized the local authorities to establish and maintain nursery schools for children under six years of age. These two statutes further increased the scope of the educational opportunities which the local schools were authorized to offer.

It was not until 1919 that the elementary instructional areas were listed in the statutes. This 1919 statute stipulated that the schools were to be taught only in the English language, and expressly forbade the teaching of German. This section relative to the German language was repealed in 1931. Under the provisions of the original statute local school authorities were directed to provide elementary schools with no tuition, and to provide instruction in the usual elementary subjects including scientific temperance and good behavior.

Dual motives may have been present when the General Assembly enacted Chapter 278 of the Acts of 1907. This statute seemed to have two purposes. The first and the most obvious was the provision bestowing upon school-age children in Indiana the right to complete the course of study in the common schools of the state, both elementary and high school. A second portion of the statute specifically stated that it was illegal to form secret societies, fraternities, or similar organizations in the schools. Later Official Opinions of the Attorney General of Indiana clarified the statute by ruling that membership in a secret society or fraternity did not violate the provisions of the statute; however, the Attorney General did rule that it was illegal for elementary or secondary pupils to form secret societies in their schools.

Patriotism and related areas have been the subject of considerable legislation since 1907 when the General Assembly enacted a statute which outlined procedures to be followed by local school authorities when they were purchasing or displaying the United States Flag. The first statute provided that the flag was to be purchased when money had been donated for that purpose. Later amendatory acts made it the duty of the local school authorities to procure the flag and to display same every day that the school was in session. Two years after the enactment of the 1907 statute the General Assembly enacted legislation directing that the "Star Spangled Banner" be sung in its entirety on all patriotic occasions in the schools of Indiana. The State Board of Education was directed to fulfill the provisions of the statute.

Even though the general statutes pertaining to the curriculum to be provided in the schools dictated that United States History be included, later statutes were

specifically concerned with certain aspects of United States history, e.g., the United States Constitution. Two statutes were enacted in one session which directed that the instruction be provided in the public, private, and parochial schools in the state. The State Board of Education was given the duty to prescribe how the instruction should be given to the school children. The General Assembly did not follow this practice of delegating authority to the State Board of Education in later legislation which prescribed in detail the content and amount of instruction in the areas of voting procedures, election laws, party structure, and citizenship responsibilities. This latter legislation was enacted in 1951, whereas the former was enacted in 1925.

Concern for the physical fitness of youth may have been the moving force behind legislation enacted in 1919 which was designed to promote instruction in physical education in the elementary and secondary schools of the state. The statute contained detailed instructions relative to the physical education instruction to be provided in the schools. The State Board of Education and the State Superintendent of Public Instruction were to determine the grade level at which the courses were to be installed, the qualifications of the teachers, and the rules and regulations concerning the courses in physical education.

Almost two decades later, in 1937, safety education was added to the instructional areas to be taught in the elementary schools. The statute further stated that the instruction was to be provided on the eighth grade level, and directed that the State Board of Education secure the course of study for the instruction and that the Board adopt the textbooks.

Statutory authority for safety education programs was expanded to include driver education during the 1957 session. By statute a special division was established within the State Department of Public Instruction to supervise and promote the driver education instruction from the state level.

In addition to prescribing certain the instruction to be provided in the schools, the General Assembly has also directed that the schools have exercises in observance of certain days during the school year. The promotion of conservation became a responsibility of the schools as a result of a statute enacted in 1913.

Appropriate exercises were to be held in the observance of Arbor Day in the spring of each year; the stated purpose of the statute was to encourage the planting of forest trees, shrubs, and vines, and to recognize the founders and early promoters of conservation in Indiana.

In 1925 legislation was enacted authorizing the schools to conduct suitable exercises to commemorate the admission of Indiana into the Union. In the same session legislation was enacted which designated a certain day as Flag Day and another day as Armistice Day. Observance of Flag Day was not required; however, local school authorities were mandated to conduct suitable exercises commemorating Armistice Day. The provisions of the 1925 statute pertaining to Armistice Day were amended by two later statutes to keep the Indiana terminology consistent with the changing name of the day. In the 1959 session of the General Assembly legislation was enacted requiring that all schools be closed on the day designated as Veteran's Day (the latest terminology for the original Armistice Day).

In 1913 and in 1917 the General Assembly took positive steps to insure that fire drills were conducted in the local schools. In the first statute the state fire marshal or his representative was directed to require that teachers conduct a fire drill each month. Four years later a more detailed statute was enacted which placed the responsibility upon the local school authorities. Teachers were not to be paid until they had presented a certified statement that a fire drill had been held during the month. One room schools were exempted from the provisions of both of these statutes.

Not until 1921 were local school authorities authorized to conduct school lunch programs. With the exception of the expenditures for facilities and equipment the program was to be as self-supporting as practicable. This statute contained provisions granting the local school authorities discretionary powers to provide free lunches to pupils unable to pay for their lunches.

An unusual course of events transpired in the 1925 and 1927 sessions of the General Assembly. In the 1925 session a statute was enacted which required that all elementary and high schools in the state teach a course in diet and nutrition. Two years later the statute was repealed. The State Superintendent of Public Instruction was charged with the duty to prescribe the rules and regulations for teaching the subjects in all elementary and high schools in the state. Instructional personnel were directed to comply with the provisions of the statute or face the possibility of license revocation. In the 1927 session this statute was specifically repealed in its entirety.

Legislation enacted during the 1927 session directed every elementary and high school teacher in the state to provide instruction in ten areas centered around morality, courtesy, and patriotism. The State Superintendent of Public Instruction was directed to provide the teachers with instructional aids to accomplish the purposes of the statute.

Voluntary religious instruction was legalized by the General Assembly in 1943. The statute contained certain restrictive features; in addition to limiting the period of instruction to 120 minutes per week, the statute stipulated that a written request must be submitted from the parent or guardian before the child is released for the instruction. Whether or not the pupils were to be permitted to pursue the instruction within the school day was placed within the discretionary powers of the local school board.

Summer programs under school auspices were not authorized until the 1951 session. Legislation enacted during the session empowered local school authorities to contract with personnel to supervise summer education activities, e.g., agricultural, industrial, and home economics work; music activities; and athletic activities.

Recognition of the problems connected with new instructional techniques was revealed when the General Assembly enacted legalizing legislation for educational television in 1959. This statute provided the framework for school corporations to participate in educational television programs, either individually or jointly.

Summary

Curriculum statutes enacted by the General Assembly vary considerably in content and purpose. Some have been enacted to provide the framework for new programs while others have been passed for legalizing purposes. Whether a statute is an enabling act or a legalizing act depends upon the past practices of the

local school authorities. Statutes pertaining to kindergartens, educational television, summer educational activities, and nursery schools are examples of statutes which may have legalized practices common in some school corporations, but not found in others because of lack of statutory authority.

After examining the structure and detail of the statutes rather than their subject matter, it appears that the statutes have varied from the broad general ones which delegate large amounts of power, to the super-specific statute which gives minute detailed instructions to both the local school authorities and to the state-level educational agency. Examples of each type of statute can be found in the same session; for this reason, it is difficult to trace the development of legislative policy without considering the entire group of statutes and searching for trends. The pattern over a period of years has been inconsistent; the curricular area of the statute seems to have been an important factor in determining the amount of detail contained in the statute.

If the General Assembly assumes a policy role, legislation should be general in nature, delegating the details to administrative agencies. If the General Assembly elects to enact detailed statutes containing specific directions, it must either spend much time reviewing past statutes or have the state saddled with outmoded legislation. The former position of the legislature assuming a policy role should result in the greatest amount of growth and development in the state's educational program.

How Can The Elementary Supervising Teacher Involve the Student Teacher in the Total School Program?

Helen H. Miller

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• SUPERVISING TEACHERS are cognizant of the fact that the job of teaching not only includes the procedures of the classroom but involves the total school program and some phases of community life.

Experiences which provide for the student teacher opportunities for acquaintance and participation in the total school and community program should be planned, supervised, and evaluated. It should be the responsibility of the supervising teacher to plan cooperatively with the student teacher the activities which provide for extensive and varied experiences outside of the regular classroom.

Very fortunate, indeed, is the student teacher who begins his student teaching in the fall semester since he has the opportunity to observe and to participate in the planning and organization of the activities for the new school year.

The supervising teacher should make arrangements for his student teacher to accompany him to the orientation meeting which is held prior to the opening day of school. This assembly provides opportunity for the student teacher to meet many of the teaching personnel and to sense in some degree the great privilege, the professional challenge, and the momentous responsibility

which confront each teacher for the ensuing school year.

Each principal has an organization meeting with his teachers before the beginning day of school. The student teacher has the opportunity to become better acquainted with the staff members, and to learn something of the work involved with planning for the entire school year. The philosophy of the school, its policies, standards, and objectives are discussed at this initial meeting. The appointment of committees and the planning for inservice study groups demonstrate the necessity for the cooperation and professional growth which are needed for effective guidance of the total school program. This over all view of cooperative planning should be a very worthwhile experience for the student teacher.

From this very first day the student teacher should be made to feel that he is another teacher in the group, that he is accepted as an important person of the school, that he has much to contribute, and much responsibility to share.

The principal of the school has an essential role in orienting the student teacher with the total school program. A conducted tour of the building acquaints the student teacher with the facilities of the school.

Meeting the custodians and understanding their service to the school is very important. Working in a cooperative, friendly manner with the custodian is an advantage to every teacher.

A discussion of the community and the types of homes from which the children come may be very helpful in understanding the pupils with which the teachers work. Driving with the student teachers over the area included in the school district gives a realistic view of the material homes of the pupils.

The supervising teacher can contribute much to the personal and social growth of the teachers by providing many opportunities for his student teacher to meet other teachers and school personnel on a professional and a social basis.

A welcoming 'back to school' party is usually given at the beginning of the school year to which the student teachers are invited. This is another opportunity to give the student teachers a feeling of belonging to the group.

The 'coffee break' affords another splendid opportunity for teachers and student teachers to become better acquainted and to relate professional and personal problems in an informal manner.

Provision should be made for the student teacher to move out of the classroom in order to have contact with the school personnel and to learn of their services within their school.

Student teachers should be permitted to visit in all classrooms of the school, including kindergarten, classes for handicapped and mentally retarded, and classes for special therapy.

A visit with the principal in his office will acquaint the student teacher with some of the administrative duties and responsibilities. The importance of correct records submitted by the teachers to facilitate composite reports for the school should show the student teacher another obligation of a teacher to the total school program.

Attendance and participation in faculty meetings permits the student teacher to observe the methods used in dealing with school problems. Philosophic principles and theory can be inculcated as policies and procedures in the objective situation of administering a school.

The student teacher should benefit from the exchange of ideas with school personnel and at the same time he will need to exercise tact, tolerance, and professional ethics in his expression of thought to teachers with a background of experience. The area of human relations requires much diplomacy if good rapport is maintained in any given school.

Whenever possible the student teacher should be included in staff study groups and curriculum committees in order that they may observe experienced teachers working together for professional growth and for improvement of the curricula. Contribution of material from the college library and the teaching materials center can make the student teacher feel that he is sharing responsibility and contributing to the study group.

Student teachers should become acquainted with the various types of records and reports used within the classroom and in the total school. Supervising teachers should instruct the student in the compilation and use of such records such as attendance reports, report cards, anecdotal notes, health reports, cumulative record cards, case studies, inventory and book records.

Assisting with the audio visual program is very helpful to the school personnel. Learning to use the equipment and helping to schedule the use of visual aids for class use, assembly groups, and Parent Teacher Association may be very beneficial to the entire school program.

Collecting pertinent school news and compiling it for publication in the school or town newspaper is a responsibility that each student teacher should experience during his student teacher training.

Assisting with the library program, whether it is a branch of a public library, a school library, a bookmobile, or a classroom library, permits the student

teacher to become better acquainted with children's literature, to evaluate children's reading abilities, to stimulate interest in recreational reading and to offer guidance and direction with reading for research material.

Assignment for playground duty permits the student teacher to observe behavior patterns, peer group status, interests and problems of individual children and groups. These observations may be very helpful in the understanding of the children with whom the student teacher is associated.

Participation in assembly programs, direction of plays, preparation of scenery, helping with school festivals, planning special exhibits, planning excursions and school parties and preparation of hall bulletin boards for special holidays and seasons permit the student teacher to develop or display a particular talent, skill, or interest. Such participation contributes to his understanding of the total school program.

Student teachers need to achieve status and acceptance in the community in which they work. The principal can do much to interpret the contribution of student teachers to the community. Presentation of student teachers to the Parent Teachers group, meeting with parents in a social hour, visitation in homes, and conferencing with parents during a Parent-Teacher Conferencing Program are valuable experiences which give opportunity for student teachers to gain recognition with the parents in their community.

Harry F. Wunker, Jr.

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• IT IS IMPOSSIBLE to say that the first sputnik has not turned out to be a blessing in disguise to the status of science, in general, and to science curricula in particular.

We at Garfield High School can be proud—even though it must be mostly an unpublicized pride—that we had previously recognized our need for improved science facilities and instructions, and had already begun the task of promoting a progress in this area. This is in the face of practical indifference on the part of most all except our school administration.

Sputnik changed all of that. With a public awareness for the first time, the increased interest in science has certainly facilitated the ease with which our changes have taken place. The past three years have seen a most complete revision of our Garfield science curriculum.

Student teachers will observe that teachers deal with people from all walks of life. A teacher must be able to express himself effectively to each parent. To do this he must use diplomacy, tact, understanding and courtesy.

It is highly desirable for student teachers to identify themselves in some of the community activities which would include affiliation with civic, religious, and cultural groups.

Membership and active participation in local, state, and national professional organizations is imperative in most school systems. The supervising teacher should provide opportunity for the student teacher to become acquainted with the literature and services of these organizations. Student teachers are welcome to attend meetings with their supervising teachers and should be encouraged to join in the activities of these professional organizations.

It is understood that the student teacher has a special assignment to a particular grade and teacher but in order to understand the role of a teacher in relation to the total school program, he must be given opportunity to become acquainted with the school personnel and to actively participate in the numerous activities of the school and community. The supervising teacher will need to use much discretion in directing this all inclusive program.

Meeting the Challenge

It is not the intention of this article, of course, to create the idea that our Garfield curriculum has had such singular success in this short time that it may now serve as a model for other science departments. Relating how our efforts have been successful is but an account of how Garfield High School, and its educational community, recognized the shortcomings, the future needs, and how well joint effort has succeeded to solve our problems.

It is hoped that the methods we have used, and some of the ideas that have developed from our experiences, can be of value to other schools also seeking continued improvement of their science curricula.

To better understand the curriculum that has been established, it is necessary here to present some background concerning Garfield High School.

Garfield is a four-year high school of approximately

750 students, located in a midwestern industrial city of about 85,000 people. Most of the students come from middle-income industrial or white collar families.

The City of Terre Haute has within its immediate area three colleges¹, and is within 100 miles of two large state universities². The city also has manufacturing and research facilities of three large scientific industries³ with a need for many technically trained personnel of both the high school and college level. Because of their location here, there is now, more than ever, a certain public awareness of the importance of science to our daily lives.

Approximately 60 per cent of the Garfield graduating class enroll in college each year. Prior to our curriculum revision, about 40 per cent of the student body at Garfield was enrolled in one or more science classes.

The high school physical plant is 48 years old. At the time the curriculum study began, science facilities consisted of one combination classroom-laboratory for biology, a chemistry laboratory, and a combination classroom-laboratory for physics. The physics laboratory was also used for chemistry lectures. The chemistry laboratory was well stocked with chemicals and glassware. The biology room was equipped with 20 microscopes, many of which were in disrepair. Physics equipment was meager; and practically no biology equipment was on hand other than the microscopes.

The science curriculum consisted of one year of biology, required of all freshmen, and one year of botany, physics, and chemistry which were offered as electives.

Evolution of Program

The "new look" in science actually received its impetus from farsightedness of our high school principal who realized that the school was in dire need of an improved science program. His primary effort was to increase the number of teachers in the department, and in this he chose teachers well-trained in their particular areas, youthful, but with enough experience to enable them to immediately undertake the task of improving the science curriculum.

The science staff was enlarged to include two full-time teachers and one half-time in the biological sciences; a full-time chemistry instructor, and a full-time physics teacher. The department head teaches bio-

logical sciences, but has had experience also in teaching physics, chemistry and general science.

The members of the departmental staff set about determining the actual needs, and desires, of the community before bringing about any drastic changes. Representatives of local scientific industries were contacted to learn what they recommended to be included in the science courses. It was generally agreed by local industry that high school graduates entering technical occupations should have a good foundation in all the sciences, and should have developed, in high school, good laboratory techniques.

The next group contacted was the Garfield High School Curriculum Committee⁴. A representative of the science department met with this group and outlined the then-current offering, and facilities of the school at that time. After careful study of the problem, the committee recommended that laboratory facilities be improved and increased, and that advanced courses should certainly be offered for the more ambitious, and for the gifted students.

Improvement of Existing Courses

Once the green light was given, frequent meetings of the department were held to further study the courses then being offered to determine what changes needed to be made, and in what order.

Our botany course has been offered for many years and had, actually, degenerated into a nature-study class. After revision the course consists of the following units:

1. A survey of the branches of botany and of related sciences.
2. Taxonomy of Indiana trees and shrubs.
3. The latest system of classification of the plant kingdom.
4. A study of the algae phyla, with intensive microscopic study, and emphasis on economic importance.
5. Bacteriology with actual culturing, staining, and microscopic study of bacteria.
6. Mycology—a thorough study of molds with special emphasis on antibiotics. Students carry out antibiotic-sensitivity testing.
7. Plant tissues, anatomy and physiology of the roots, stems, and leaves.
8. The basic laws of genetics with some plant breeding studied.

In order to bring about the desired improvements, it was necessary to secure bacteriological equipment

¹Indiana State College, Rose Polytechnic Institute and Saint Mary's of the Woods.

²Purdue University and Indiana University.

³Chas. Pfizer & Co., Inc., Commercial Solvents Corp., and the Visking Corporation.

⁴The Garfield High School Curriculum Committee is a group of parents, teachers, and students who meet monthly to study the school's curriculum and make suggestions, to the principal, for its improvement.

and supplies. An incubator, sterilizing oven, and pressure cooker were purchased. Petri dishes and culture tubes were donated by local scientific industry. Several of the microscopes were outfitted with oil immersion objectives, and a library of permanent microscopic slides was begun. Each year more slides are added to the collection.

Inasmuch as physics laboratories are generally the most expensive to equip in a high school science setup, a careful inventory and study was made of the existing physics equipment and facilities. Several small classes in physics were offered in order to make full utilization of the equipment on hand. A long-range budget was set up in order to bring the inventory up to the desired standards.

At the beginning of the current school year, two types of beginning physics were offered. One course is called "general physics" and is designed for the students interested in science, but who do not plan to enter college. Students taking general physics study the practical aspects of the subject and do not get into higher mathematics. The other course is called "college physics" and is designed for students in the college preparatory course. It is more intensive than the general course.

One year of biology is required of all students at the freshman level, except those on the engineering course at Garfield High School. It was the feeling of the departmental staff that this course should serve as a motivating point for not only biology, but for all areas of science. Each biology teacher stresses the career possibilities in medical, health and related fields, and points out the close relationships between the sciences.

The number of laboratory experiences has been greatly increased in freshman biology, and each student taking the course becomes proficient in the use of the compound microscope.

One combination classroom-laboratory has proved insufficient for the increased activity in the biological sciences. At the beginning of the present school year, an additional classroom was equipped with a demonstration desk and tables and chairs to serve as a supplementary laboratory.

All students in Indiana high schools are required to take one semester of Health prior to graduation. This subject is usually handled by the physical education department, and very often there is a great amount of overlapping between the material taught and that covered in the required biology course. In order to provide better communication between the two subject areas, the Health course at Garfield has been placed

in the science department curriculum. Biology and Health are now coordinated, and human anatomy and physiology are covered in the Health classes only.

After careful evaluation by the members of the science department, it was our general feeling that beginning chemistry courses needed little revision. The laboratory was well stocked with supplies and equipment, and interest in chemistry was high among the student body.

The class size, however, was cut to twenty, in order to provide more individual attention and to eliminate congestion in the laboratory. As in physics, two types of beginning chemistry are now being offered—general and college preparatory.

Classes for the Gifted

In order to provide additional challenges for the gifted and especially-interested students, it was our unanimous opinion that the curriculum could well justify special classes. Since the bulk of the budget, by necessity, was earmarked for several coming years to improve facilities for the regular classes, chemistry already adequately supplied seemed to be the logical choice for the first of such classes. An advanced course could be offered in which the regular chemistry equipment could be used, without extensive outlays for additional materials. Only two pieces of equipment were purchased for the new course in chemistry—a Ph meter and an electric centrifuge.

Advanced chemistry is now a one-year subject, open to students who have completed one year of beginning chemistry with at least a 'B' average. The first semester is primarily qualitative analysis, consisting of lectures on each group of chemicals studied, and a maximum of student laboratory work dealing with the identification of unknown substances⁵. The five basic metals, the three acid groups, and the common radicals are studied.

The second semester is an introduction to organic substances with special emphases on biochemistry. The following units are presented with appropriate laboratory exercises⁶:

1. Organic chemistry introduction
2. Paraffins, olifins, and acetylene series.
3. Cycloparaffins and aromatic hydrocarbons
4. Alcohols, aldehydes, ketones, and esters
5. Carbohydrates, proteins and fats
6. Enzymes, vitamins and hormones
7. Medicinals and pharmaceuticals
8. Agricultural and organic chemistry

⁵A syllabus prepared by the instructor, Walter Engle, is distributed to each student for use as a text and laboratory manual.

At the beginning of the 1959-60 school year, a class in zoology was offered. Students interested in enrolling made application the previous year before the close of school. Students admitted into the course were selected on the basis of previous sciences studied, grades in science and English; and intelligence, aptitude, and achievement test scores. The class size was limited to twenty so that each student would have his own microscope with which to work throughout the year.

Zoology consists of one full year of study with the following units of work being covered⁷:

Semester One

1. Protoplasm, cellular organization, and mitosis
2. Protozoa, including culturing and staining
3. Porifera, structure and economic importance
4. Coelenterata, anatomy and physiology
5. Platyhelminthes, including appropriate life cycles
6. Nematelminthe, including appropriate life cycles
7. Annelida, economic importance and dissection of grasshopper
9. Mollusca and Echinodermata, dissection of clam

Semester Two

1. Plylun chordata, general characteristics
2. Bony fishes, dissection of perch
3. Amphibians, dissection of frog
4. The reptiles, field study
5. The birds, field study
6. The mammals, field study and detailed dissection of the grey rat
7. Embryology of vertibrate animals, appropriate microscopic slides studied
8. Tissue study, appropriate microscopic slides studied
9. A study of human heredity

At the beginning of the Spring, 1960, semester a course in electronics was offered. The class is open to students who have completed physics. Electronics will be taken as a fifth subject, and only students maintaining a "B" average may enroll for this extra subject. The following units of work will be covered with appropriate laboratory exercises⁸:

1. Alternating current, theory and measurement
2. Inductance, inductive reactance and impedance
3. Capacitance and capacitive reactance
4. Resonant circuits and tuning principles
5. The electromagnetic wave
6. Radio—tubes, characteristics, amplifiers and oscillators
7. Transmitters, continuous-wave and modulated-wave
8. The Cathode-ray tube and its applications

⁷The text selected for this course is **Organic Chemistry** by Lewis Hatch, McGraw-Hill Book Co., Inc., New York, N. Y., 1955.

⁷The text selected for this course is **College Zoology** by Robert W. Hegner and Karl A. Stiles, The MacMillan Co., New York, N. Y., 1959.

⁸The text selected for this course is **Elements of Radio** by Abraham Marcus and William Marcus, Prentice-Hall, Inc., 1959.

Co-curricular Activities

In order to stimulate and nurture interest in the study of science and scientific careers, the Garfield High School science department sponsors three science clubs.

The Future Scientists of America is open to students majoring in science. The club meets weekly during the activities period with varied programs being presented at each meeting. The club carries out money-making projects, and has adopted a permanent project of keeping the department's microscopes in good repair. The club also keeps a record of all Garfield students doing research projects and offers aid in securing needed materials.

The Physical Science Club is open to students whose primary interest is in physics or chemistry. This club also meets weekly during the activities period. Each year the club enters several group projects in the Regional Science Fair.

The Amateur Radio Club consists of students interested in amateur radio broadcasting. Several of its members are already licensed "Ham" operators and operate their own radio stations at home. All members are required to learn to transmit and receive Morse Code; and last year, several members received their operator's license as a result of their work done in the club. Garfield now has its own amateur radio station and participates in a weekly civilian defense network practice alert.

In order to further enrich the science curriculum, the school applied for and has enjoyed the services of the Travelling Science Library which is sponsored by the National Science Foundation.

As a stimulus for both the students and the members of the departmental staff, Garfield applied for and received the services of the Travelling Science Teacher Program of the University of Michigan and the National Science Foundation.

Evidences of Positive Results

During the past three years, the science enrollment at Garfield High School has risen from 40 per cent of the student body to more than 65 per cent. Reports from former students now enrolled in science classes in college indicate satisfactory adjustment. Out of 73 Garfield students who took the National Merit Scholarship test last spring, 7 scored in the 99th percentile in science and 25 above the 90th. The average science percentile for Garfield students was 86. This represented a 16 percentile point improvement over the previous year.

During the past three summers nine Garfield students have been selected to attend summer science institutes—three at Indiana Central College, two at Indiana University, one at the University of Maine, one at Texas Women's University, and one at Southern Illinois University.

In the past three years over fifty Garfield students have entered projects in the West Central Indiana Regional Science Fair; fourteen of these have received awards. In 1959, two Garfield students were selected as finalists at the National Science Fair held at Hartford, Connecticut. One of these projects received a first-place award in the Girls' Biological division, and a first-place U. S. Army award at the National Science Fair. In 1960 another Garfield student was selected as a finalist at the National Science Fair held in Indianapolis, Indiana. This project received a fourth-place award in the Girls' Biological division.

In 1958 and 1959 Garfield was one of the twelve Indiana high schools to receive a student research grant from the Indiana Heart Foundation.

In the fall of 1959 the Kroger Company, through the Indiana Academy of Science, presented three awards to schools in Indiana with outstanding science programs during the annual meeting of the Indiana Junior Academy of Science. The Garfield science department received the second-place award.

Conclusions

Garfield is but one school in the United States today, and nothing has been done here that could not be done in most schools. It is the responsibility of the school, regardless of how large or small, to provide the best possible education for its students. To that end our administration, our staff members, and our students themselves are working ever-harder to keep pace with progress at our level of science endeavor—and, if possible, to be just a bit better than would be prescribed by a normal progress level.

Science is advancing every day, and it is a monumental task for the educational program to keep up with the changing world. There is but one way, as we see it, to keep pace with the trend; that is, by a continuous evaluation and revision of the science curricula being offered in our own and in other American high schools. This problem requires the combined efforts of the teachers, school administrators, parents, students and the community as a whole. From our own brief experience, we are sure that, given a proper stimulus, if all groups will coordinate their efforts to the end, all of our students will emerge from their high school educational experiences with the increased confidence and competency so urgently needed in our fast-changing world.

Economic Understanding: Why, What, How

Earl M. Stephanson

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• MOST AUTHORITIES agree that the *quality* of economics taught in our high schools today is, by and large, not good; nor is the training of those who teach economics adequate to meet the challenge of a world caught in the explosions of rising economic expectations and technology in the twentieth century power struggle between the U. S. S. R. and the United States.

The case for economic understanding is the case for a democratic society—an alert citizenry who can intelligently examine political, economic and social problems with a view to policy formulations to meet these challenges.

The picture painted by the experts is not very optimistic. A study prepared by the Brookings Institute a decade ago indicates that less than five per cent of high school students have taken the equivalent of a

one semester course in economics.¹ Since 1929 this percentage has been decreasing, not rising!

A nationwide survey of the Opinion Research Corporation indicates that the median score of high school seniors in economic literacy was only slightly better than one based on pure chance.² The amount of economic illiteracy and incompetence is amazing, but not surprising to the professor teaching freshman economics.

With respect to the quality of teacher training, a recent study by D. Elwyn Miller in a six county survey of southeast Iowa shows that 25 percent of those *teaching economics in high schools* had no formal course in economics, and that most of the group surveyed had nothing more than a semester course in elementary economics. In fact, the average undergraduate

preparation for the entire group was 4.96 semester hours, and the average time elapsed since their formal work in economics was 14.2 years. (Less than 20 percent had an economics course on the *graduate level* with an average of 4.63 semester hours for the group taking economics courses.) In testing the group for economic understanding there were measurable weaknesses in those areas which require a high level of understanding of technical and specialized terminology and a familiarity with the newer approaches to economic analysis. Dr. Miller concludes.

The teacher-examinees did not do a consistent job of clear thinking about what economics is and what the function of theory should be... In light of their general professional competence those teachers do not need to have methodology and materials specifically designed for economic education spelled out for them nearly as much as they need aid in acquiring knowledge of basic economic content. Teachers do not realize the degree to which they are teaching or misteaching economic concepts in their classrooms. There is a lack of total economic training among them. Moreover, given the current content of economics, the courses they took some 10 to 15 years ago are now sadly out of date.³

To be sure, there are a number of teachers in public schools who are doing an excellent job of bringing about economic understanding, but the number is far too few.

What is economic understanding and what do we want to achieve? There is probably universal agreement that the general objective of economics is "to acquaint the student with the basic concepts used by economists and a sense of their usefulness and limitations so that his critical ability is enhanced and he becomes a more intelligent and useful member of society."⁴

Economic understanding does not consist of a stock of economic information, nor the possession of "Do-it-yourself kits" supplied by vested interests, nor a set of precepts or skills to be used in the conduct of economic transactions--such as making a bank deposit slip. Nor does it consist of description and problem solving. Facts are not ends in themselves; they are useful only when they have meaning or significance. Thus economic understanding is concerned with "why"; the "what" is an ancillary to the "why".

The economist attempts to provide an analytical framework of our economic system upon which a student can build economic understanding and by which he can apply economic tools to economic problems. For example, economic theory is not an end in itself, it is but one of many tools by which the economist analyzes economic phenomena.

The student should know the central core of eco-

nomics: the allocation of scarce resources amongst many wants. The central problems of any economic system are basically three. First, what commodities shall be produced and in what quantities? Second, how these goods shall be produced--that is, by whom and with what resources. Third, for whom should these goods be produced. All economic problems--the problems of labor, agriculture, taxation, inflation, full employment, monopoly, economic growth--are manifestations of the central core of economics that relate back to the central problems of an economic system. To assert that the "central core of economics" is all there is to economic understanding is to simplify a very complex, interdisciplinary social science. In addition, the student should know the purpose and function of an economic system as well as its institutions and its setting. He should be aware of the many social and political factors that impinge upon economic problems and he should be able to judge and discriminate between economic and social values.

The important question, which is the primary purpose of this paper, is to outline briefly HOW we can improve economic understanding in our public schools. There is no substitute for a two semester course in the principles of economics. The "ideal" would be the of a "teaching minor in economics" in the social studies department, where the beginning course would be followed by a year sequence; for example, in Economic Thought and Intermediate Theory taken concurrently with one of Money and Banking and National Income Analysis. Since most principles courses are designed to meet the needs of the liberal arts, economics and business majors, the basic course could readily be altered to meet the needs of the social studies teacher. Such an experiment would not be too difficult. The broad content of the economics course would, of course, be the same, but the technical apparatus geared for the economics and business major could be eliminated. The treatment of some areas, such as accounting, and corporation finance, might also be eliminated. The approach to the introductory course would strike a workable balance between description, analysis and policy. As an example, it is perhaps unfortunate that most of the students in the Money and Banking course are business majors. The use of accounting tools to analyze our monetary system seems all but incomprehensible to many many social studies majors, and they are of questionable use in the public school classroom.

One area that is seriously neglected by the teachers college is the terminal course for the elementary teacher. A one semester principles course for the elementary teacher would embody much of what is outlined above. One suggestion would be to cover the basic content more thoroughly, but the content would of necessity

be more selective. The institutional approach would perhaps have more meaning and more use value, though it need not be used exclusively. Four years ago the writer devised a course solely for the elementary teacher in the Survey of American Industry to supplement the principles course. The function of the course was three-fold; an historical-institutional survey of some twenty basic industries, followed by an examination of the technical processes of production and finalized by an economic analysis of the problems peculiar to each of the industries. In the final chapters of the textbook, there was an attempt to survey the field of economics with a "birds-eye" view of how these industries integrate into a dynamic, ever changing economic system. After two years the course was dropped. The students lacked basic understanding of the core of economics to adequately handle the analysis of economic problems, and enrollments were too small to justify continuing the course. Given a principles course to meet the needs of the elementary teacher, the Survey of American Industry course would be a worthy experiment to afford the type of economic understanding needed in the elementary grades.

A second approach would be to establish an in-service training program between the college and the public school. The most successful of these have been those programs where the economics professor has spent a semester working in the classroom with the teacher. In this arrangement, the economist has the opportunity to observe the problems and needs of school curricula in economic understanding, to assist the teacher to discriminate between what is or is not useful among the horde of literature attractively prepared for school teachers and to prepare class units and other materials.

The above two approaches represent perhaps the

best means of achieving economic understanding. Unfortunately, the opportunity to take advantage of either of these is not open to all teachers.

Increasing in popularity is the use of work-shops and institutes. Ideally, work shops and institutes serve best when they are designed to bring up-to-date knowledge to the teacher who has academic training in economic understanding, much like the doctor who goes to school every year or two to keep abreast of the latest knowledge and practices in the field of medicine. Right or wrong, economists generally feel that work-shops and institutes are not a substitute for the basic courses offered in our colleges. They tend to fragmentize economic knowledge and thus afford little to the economic understanding so desired. In some cases, "a little knowledge is a dangerous thing". However, they, at least, are better than nothing.

In the final analysis, "the real need is for teachers who are prepared by training to evaluate materials for themselves, to name what they want in the way of materials, and even to prepare materials for their own use and for others."⁵ This can be done best by formal courses offered in our teachers colleges together with an in-service training program.

¹McKee, C. W. and Moulton, H. G., *Survey of Economic Education*, Brookings Institute, 1951.

²Opinion Research Corporation, "The High School Market for Economic Education", The Public Opinion Index for Industry, June, 1951.

³Elwyn Miller, "The High School Teacher of Economics: A Study of the Background of Teachers of Social Studies in Selected Iowa Counties", Iowa Business Digest, Winter, 1957, pp. 42-3.

⁴John Chalmers and Lawrence Leamer, "A Philosophy of Economic Education", Atlanta Economic Review, June, 1959, p. 14.

⁵Ben W. Lewis, *Economic Understanding: Why and What*, American Economic Review Supplement, May, 1957, pp. 660.

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Teachers Meetings a Century Ago

• WHAT DID TEACHERS talk about in meetings a century ago? Were their meetings different? Were the problems they encountered anything like those of today? A close look at the "Minutes of the Terre Haute Teachers' Institutes, 1867-1876," reveals that time has done little to change the basic nature of youth.¹ Youth presents the same problems and challenges. The "Minutes" show that methods of handling these situations and challenges have changed. It will not be the purpose of this article to evaluate these changes, or to

pass judgment on the comments and bits of advice that these early pedagogues shared together. The question may come to the reader's mind, as it did to the writer's mind, of how much progress have we actually made in the handling of these problems.

The first monthly institute for all teachers in the city met August 31, 1867, in the High School Room of the first Terre Haute high school. Succeeding meetings were held here, though the meeting-times varied from 9:00 Saturday morning to 4:00 Friday afternoon.

Meetings lasted a minimum of two hours and programs were often finished at the next institute. Programs consisted of class demonstrations, papers presented by teachers, administration reports, and guest lectures.² All meetings opened with a Bible reading or inspirational passages from classic literature, and a prayer. Later the group added singing to the list of opening exercises.

Superintendent J. M. Olcott said in the first address before the institute that such meetings have real advantages for those teachers who can profit by experience. "In commingling with living teachers we are enabled to see our own errors. To those who persistently absent themselves from the institute the great secrets of skill and success in imparting instruction are clothed in darkness. We may grow wiser by availing ourselves of the experience of others."³ These meetings afforded opportunities for the discussion and interchange of opinions on theory and practices of teaching in order to maintain high, uniform standards of scholarship.⁴ This idea of sharing became an essential part of all meetings. Teachers were free to discuss any ideas, and frequently disagreed with the remarks of the superintendent. Spirited argument often followed the lectures, and the secretary complained that she couldn't record it all.

Discipline, favorite topic in many institutes, stimulated discussion, but seldom agreement. When W. H. Wiley (who later served as superintendent for over forty years) taught high school mathematics and government, he argued that study should never be imposed as punishment. He stressed that the school's purpose was to teach students habits of study. "The ideal teacher creates in his pupils an earnest desire for knowledge. Good habits are not formed if punishment is made their foundation and support. Study should not be punishment, for we teach our pupils the value of study and talk to them of the pleasures found in the pursuit of knowledge. Pupils regard punishment as humiliating and it is not customary to hear them speak of the pleasures of discipline. When study is inflicted as punishment, they persist in not studying and if you force them to study, you teach them to hate that which you ought to teach them to love. Fear of punishment doesn't secure desirable results. Pupils study under such circumstances to secure the good will of the teacher, rather than to master the subject."⁵

On controversial topics, Mr. Byers⁶ customarily followed Wiley with a speech supporting the opposite view. Byers refuted by insisting that in many cases punishment was absolutely necessary to prevent idleness, and to break up habits of indolence. After audience discussion the secretary reported that Supt. Olcott

"sustained the affirmative," commenting that mental exercise properly conducted affords pleasure. He suggested that discipline problems result when students don't understand and study seems hard. "The hardship is speedily overcome when there is a prospect of success. Many a battle has been won by the enthusiasm of 'Onward! The enemy's lines are giving way.'"

When Wiley became superintendent in 1870, he required all teachers to keep a monthly deportment register,⁷ and a discipline register which he referred to as a "Whipping Register." At the end of each month teachers reported all disciplinary actions to the central office. Commenting on these reports before one institute, this school administrator told the teachers that they sometimes spoke too harshly to students. He also informed the teachers to stop suspending students for want of books when their parents were unable to supply them, or for absence caused by sickness.

On December 10, 1870, Supt. Wiley read to the assembled group the following Board of School Trustees' Order: "Hereafter corporal punishment will not be permitted in schools of Terre Haute." After this announcement Wiley asked the teachers to silently consider this question, "How much power have I beyond physical?"⁸

Though effective for a time, this policy did not curb all corporal punishment; and the superintendent continued to advocate moderation while the teachers continued to individualize their instruction in this area. Although Supt. Wiley disliked spankings, he expected "model order" in all schools. He spoke sternly about teachers who let students walk heavily over the floors and throw hats instead of passing them at recess time. Teachers were cautioned not to give any boy "a bad name for fear he might become careless and indifferent, and live to the very letter of his unfavorable title."⁹ Lectures such as "How to Discipline for Lying, Swearing and Vulgarity" counseled teachers to show much patience in "breeding out these bad habits by stressing the impropriety and sinfulness of them; and especially teachers should avoid 'rough language' in the presence of pupils."¹⁰ Individual papers on discipline stopped in 1873 when the group decided that each month teachers would present severe discipline problems and how they handled them. Afterwards the group evaluated their actions.

Reports on academic subjects were frequently preceded by a demonstration in that area. Class drills were presented in reading at all grade levels, map reading and drawing, intermediate grammar, spelling, permanency, natural history, decimals, etc. After the class was dismissed, the lesson was analyzed by the audience.

When classes weren't present, the teachers played the role of the class and performed the lesson.

What suggestions did teachers make for improving instruction in reading? A series of papers delivered on reading partially answers this question. Miss Floyd advocated that meaningless syllables and unintelligible words should never be read for the reason that they are not emotional. Such words do not give vivid action to the mind because they are not comprehended and that the effect of reading in this way is to produce mental dispeptics. Miss Reach added, "Reading is the act of correctly delivering recorded thought. Every sentence should convey a finished picture to the mind. If the words mean nothing, there is no picture; pupils are not interested and the exercise is dull. An important object of reading is to acquire a taste for reading." Miss Byers, third speaker, believed that mechanical reading was abominable, yet it was to true reading what the strings, wires, and rods were to a perfect musical instrument. "A correct pronunciation, a pure accent and the application of the general rules of reading should be so thoroughly taught as to be fixed habits, to be observed mechanically." To illustrate another contention, she lamented that she had read beautiful poems and stories to children and that only four or five pair of eyes ever kindled with pleasure. "The rest simply stared until I stopped and then asked, 'Won't you read to us about bears and Indians?' If there is no inward perception of the beautiful thought, how can the voice be taught to give expression to it."¹¹ These talks called for demonstrations on all levels using McGuffey's *Readers* in subsequent institutes.¹²

Entrance age related to reading problems. Miss Knapp reported on the difference between the work of those pupils who enter school as soon as they are six years of age, and those who don't enter until they are seven or eight years. Experience firmly convinced her that the eight-year-old pupil was able to do first-grade work without pushing.

Mr. Paige, first music supervisor in the Terre Haute Schools, complained that he could not do all of the drill work himself. He hoped that he could rely upon the regular teachers to continue drill on each lesson. Other teachers readily saw this obligation.¹³

Language teaching concerned many institute members. Group discussions ensued after this topic. "How Do You Conduct Your Definition and Sentence Work, and What Attention Do You Give to the Kind of Paper, Punctuation, Capital Letters, Correctness of Thought and Expression in Written Exercises?" At another meeting an article about language teaching was read from the *Ohio Monthly*.¹⁴ This article suggested that grammarians improve their English teaching

by correcting all student mistakes in recitations; copying sentences from various sources, dictating from books or one's own sentences, narrating incidents; committing to memory and reciting pieces suited to the capacities of the students. As a result of these discussions of composition the group passed a resolution that time be set apart for this work in all classes.

Speech was not a formal discipline at this time, but Miss Abbie Flagg (Eugene V. Debs' teacher) evidently stressed speech in connection with her language teaching. For on November 9, 1867, she addressed the assembled teachers on, "What Are The Advantages of Oral English?" She pointed out that there was among young scholars a popular prejudice against grammar. "'Of what use is it' they ask. 'I see no sense in it.' But if the teacher has skill to awaken the interest and fix attention of the scholars upon the oral subject then that grammar is something practical and tangible, and not an occult science. If these oral lessons should be accompanied with frequent criticisms at any and all times, they would be of much more advantage in the formation of early habits of correct speaking. . . And if all teachers from the primary departments upward would insist upon the avoidance of such errors, we should hear much more grammatical language in grammar high school and life."¹⁵ Exercises in declamation occurred at regular intervals in all schools. A select few recited their "pieces" before the institute. Diverse comments followed Wiley's talk, "What Benefits Are Derived from Reciting Dialogues in School?" in 1869. By 1873 rhetoric was taught in the high school, and Mr. Greenawalt enlightened the group with his lecture, "Rhetorical Discourse and Its Kinds; Departments of Rhetoric; Nature and Parts of Invention." Certainly Greenawalt succeeded (in spite of the title) in this persuasive presentation because the group voted seventeen to eleven, with several teachers not voting, to have him continue his rhetoric tutelage.

During these years special half-hour classes in physiology, rhetoric, and U. S. Constitution were taught in the monthly institutes. After hearing papers read in these areas, the majority voted for more lessons for "mutual improvement." Mr. Moore's physiology lessons failed after the third session. "He tried to make the subject interesting, but the lesson just didn't come off, because too many teachers didn't study the assigned material." After recess (taken midway in all programs) the "students" called for a vote and physiology lost! Rhetoric lasted longer and survived two close ballots before losing out. Supt. Wiley taught the constitution class which lasted almost a year. The secretary recorded monthly, "A marvelous lesson." She makes no mention of any votes on this course.

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Some Factors Pertaining to Merit Salary Planning

• THE QUESTION of merit salaries appears to be linked inseparably to the recruitment and stabilization of superior public school teachers. Administrative subjectivity frequently enters into judgments when personnel evaluations are made. As a result erroneous decisions may motivate productive teachers to leave the profession. Public school administrators can equip themselves with some informational sources basic to inferring more objective evaluations of those to receive additional salaries.

Merit pay would be defined best as additional monies beyond an adequate single salary schedule. It is desirable that the district would possess such a schedule bestowing equal pay for like experience and training. A basic salary schedule would necessarily be competitively high to attract outstanding talent at the outset. The levels would have to remain professionally high at each of fifteen or sixteen increments wherein the teacher would attain the top level. It is the payment received beyond this level that one would consider true merit award.

Needless to say, faculty attitude determines the success or failure of such ventures. Joint administrative-teacher committees are probably the most successful vehicle for gaining necessary support. Ten basic factors are suggested here that might well be investigated by the group in the initial planning.

An important feature is the description of superior teaching. The content of productive teaching should be stated in behavioral terms, understandable to the faculty tending to profit by it.

A second factor to be weighed is the matter of association activity. Does participation in national, state, and local teacher organizations relate favorably to successful teaching? This matter would demand exploration and study.

Wholesome guidance influence on children and youth is a third factor for committee discussion. A talent to guide students is basic to achievement in elementary and secondary education. A teacher's personal integrity coupled with teaching skill should motivate the pupil to go beyond normal class expectancies in learning.

Fourthly, additional duties must be held distinct from teaching assignments. Efforts such as coaching, class sponsors, and teaching principalships often require supplementary income. The supplementary differential must be recognized as such, but not considered as merit pay.

Eligibility constitutes a fifth problem. Should teachers who have earned tenure or passed a probationary period be the only members eligible? Another dimension of the eligibility question demands an answer: what percentage of total teaching personnel may receive merit—1, 20, or 30 per cent?¹

Gradations of award within a merit system requires attention as a sixth tenet. The size of the award would probably vary with the capability of the teacher. A current study polled a merit policy district faculty on the question of gradation of merit: 54 per cent felt that different levels of merit should prevail; 30 per cent responded negatively, with 16 per cent remaining indifferent.²

A seventh consideration of importance is that professional specialities should not be targets for discrimination. For illustration, teachers of physics, mathematics or first grade should not receive superior salaries under the guise of merit. A teacher of doubtful skill could be over compensated in the replacement was difficult. Merit would be given under circumstances of intrinsic superiority not due to the shortages of skills in the manpower marketplaces.

Composition of the merit rating team is an eighth factor. Current practices in one district indicates that observations should be conducted by a team of three: (1) the principal, (2) elementary supervisor or secondary department head, and (3) a peer teacher or teachers. The principal converts the scores into a composite, later informing the teacher of results in a private interview.³

¹"Alamogordo Merit Plan", *Associated Public School Systems Yearbook* (Teachers College, Columbia University, 1957, p. 12)

²Burks, Seldon E., *A Study of Teacher Merit in Alamogordo*, unpublished graduate manuscript (New Mexico State University, 1958, p. 28).

³Burks, p. 20.

Public service offers a ninth difficult area. Distributive education, vocational agriculture and coaching lend themselves to a high degree of public contact. Literature and sixth grade specialities may seldom deal with the public. Teachers with an isolated assignment should not be penalized.

A tenth point is that length of teaching service

should not be treated alone. Long tenure within a district must not be confused with superior teaching.

The role of merit in the conservation of professional teaching is worthy of investigation within a school district. The warm support of a faculty is basic to the success of such an effort. A multifactor scale should be constructed by a joint committee and carefully study of the ten factors discussed above in indeed warranted.

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What is Today's Business Looking for in the Young College Student?

An address given before the business administration students of Indiana State Teachers College, Terre Haute, Indiana, 11:00 a.m., Tuesday, November 22, 1960.

• BUSINESS IS looking today to the colleges and universities of our country, for the *leaders of tomorrow*. Business is looking for those qualities in an individual which mark him or her, as a prospective candidate for managerial responsibilities.

Let us consider for a moment this morning, a few of the personal traits of a good leader. Certainly desire, imagination, initiative, intelligence, loyalty, sincerity, and probably a dozen more characteristics can be found in our nation's business leaders. It should be remembered that these qualities or personal traits which I have just enumerated, are not mutually exclusive. That is, any one of these traits partially includes all of the others.

We all strive to be leaders in one way or another; in our home, our community, our church and in our chosen profession. Among you here today are leaders in your sororities, fraternities, in your athletic endeavors, and, I hope, on the Dean's List! Examine these student leaders and see if they are not driven by an inner spark of desire, if they are not imaginative; sometimes even to the point of wanting to overthrow our accepted customs and mores. Finally, do not these individuals, through their positive actions, convey sincerity and purpose?

Our American educational system should, among other things, I believe develop us *all* into leaders.

You might question this statement by asking: "How can our economy utilize all of these leaders?" My answer would be to look back in history at the changes which have taken place in our business enterprises over the past several decades. In fact, back to the last century.

We in America have long been aware that in commerce and industry there exists a ratio of productive to nonproductive employees; a certain balance between hourly and salaried employees. One of the hallmarks of the successful firm during this period was the manager's ability to keep the two components of the ratio fairly well apparent, and in a fixed relationship to the level of the firm's output. This meant that for a long time, even after the Industrial Revolution, the entrepreneurs of American business attempted to gauge their productivity and efficiency with one eye on the productive-nonproductive ratio and with the other eye on the return from their invested capital.

Today, however, in many industries of our economy, the spread in this ratio has become extremely narrow; and in certain instances, the ratio has become inverted. This phenomena can properly be attributed to the Industrial Revolution which started during World War II.

Business had learned to conserve and to rechannel our human resources. Automation and technological developments and improvements have lessened the

physical strain on our productive and hourly working forces. In doing so, it has taken the major physical burden away from the backs of the laboring force and replaced it with a mental burden on their brain. Hence, the greater constant need for more individuals with leadership characteristics.

The best leaders are, of course, the best followers. This is true because every leader in a sense "follows" the dictates of the individual on the rung ahead of him on the ladder of success. Even the Chairman of the Board of General Motors or U. S. Steel must "follow" the dictates of his stockholders. Since the tendency in the past decade has been for employees to have an ownership interest in the company which employs them, through the purchase of common stock, it puts the floor sweeper and the office clerk in the unique position of being a "leader" as well as a follower. This, then, has the effect of twisting the commonly accepted vertical and horizontal organizational charts into a circular sphere.

Providing leadership to a business concern is much like teaching and leaders, therefore, should possess teaching skills. In the truest sense, the role of the leader and that of the teacher are identical. Both attempt to give guidance to those whom they are responsible for, and both seek constantly to arrange matters so that the members of the groups, improve and learn. Neither the good leader nor the good teacher is the "boss" merely by virtue of his position. This can only be gained through mutual respect and confidence and a true display of ability.

Let us now consider three additional personal traits of effective leadership, which in my estimation are the real keys to successful management in business.

First the ability to get along with others... the possession of the proper kind of a *personality*.

In numerous surveys which have attempted to pin point the reasons for an employee's failure and subsequent dismissal, the results predominately indicate that it was the inability of the employee to get along with his fellow workers. It was not, mind you, his competence or his knowledge or the skill with which he performed his duties... it was the conflict of a personality with that of many personalities.

Personalities in business are not unlike the personalities you find in your private, social, and academic life. In the business field you will encounter people like the "Status Seekers" of Vance Packard; Crawford Greenawalt's "Uncommon Man"; "The Hucksters" of Frederick Wakeman as well as William Whyte Jr's., "Organization Man". You'll find, in other words, a conglomeration of individuals each exhibiting a distinct

personality. The job, then, of the effective leader is to blend, motivate, and direct these individuals, in a unified effort which is nothing more than teamwork. The kind of unified effort your coaches try to develop on the athletic fields.

Business seeks not the "Personality Kid" . . . rather the "Personable Individual". An individual who, along with the other members of his business group, constitute the various ingredients of the business function, and can be blended into a profitable operation.

While a personable nature, then, is a major characteristic that will enable you to keep your job, what, then, will it take for you to advance in your field of endeavor?

Assume for a minute, that we have two employees; equal in ability, knowledge, experience, personality, and the other character previously discussed. What one additional attribute can often times give the advantage to one employee over the other? It is the ability to *communicate* thoughts, ideas, and suggestions to the other people in your business group . . . communication through the written and spoken word.

How can an otherwise able and well informed business man gain and maintain respect for himself at the top management level, if the letters and reports he writes, contain poorly constructed sentences and misspelled words? And, incidentally, the answer *does not* lie in your secretary.

How can he also put across his ideas and recommendations if the important parts are lost in muddling, rhetorical eloquence?

The success or failure of a new product, new service, or new technique is many times determined by the originator's ability to clearly and concisely communicate the full meaning and significance of his ideas to his fellow employees. The study of semantics, public speaking, and plain old fashioned written composition, will play a far more important part in your business career than you can ever imagine.

The third additional characteristic of a good leader is the possession of an exceptional capacity for *making decisions*. The individual who has decision making capabilities is one who can take the immeasurable factors involved in business judgement and make the correct evaluation which will lead his company forward.

This ability of making decisions implies the need of what I consider to be the true goal of education . . . constructive reasoning. No man or woman is ever fully educated until he or she can understand the relationship of things to each other; rather than the mere fact of their existence. And, once having understood this

relationship, to use this knowledge to develop new ideas, new ways of using the tools of existence in order to make that existence more worthwhile.

Some people might think that the study of historical materials is outmoded in preparing yourself for decision-making responsibilities. Actually only the emphasis need be changed. The important thing to learn is the way in which our forefathers solved the problems of their particular period, as opposed to the solutions themselves. As business students you have surely come to realize this fact in your examinations... the questions remain basically the same; but the answers change as a result of changes in our statutes, our customs, and our methods of doing business.

In discussing the matter of leadership and the specific qualities of personality, communication and decision-making, we are led to this inevitable conclusion... business leaders of tomorrow *must* have a better knowledge of the world, of our society, and certainly of our economy if we are to continue to make the progress required by our exploding population.

Business, therefore, is looking for the student with the educational background which meets the requirements of this conclusion. As the same time, business realizes that the college student, preparing himself for a business career today cannot prognosticate very accurately, nor can his teachers, the type of education that he may need in the next 5, 10, or 15 years. Hence, it becomes evident that the diversity of business and its significance in our society justifies *breadth* rather than narrowness in education.

This, was the central theme, highlighted in the Ford and Carnegie foundation reports. Puttig it another way, it is the classic argument between the "know-how" versus the "know-why" systems of education. The reports, as you may know, criticized schools for putting too much emphasis on the "vocational" type of courses.

Somewhere between these two extreme positions lies the answer. Many of our leading schools of business give the student the middle ground type of education by supplementing their staff with businessmen; utilizing their background and experience in conjunction with the principles and theory instructions received by the students. Another method is for the school administration to encourage their faculty to engage in outside study and consulting activities in order to bring to the student, the latest trends in our dynamic and progressive economy. This last method of engaging in outside consulting work also does wonders for the faculty's bank accounts.

One final thought on this subject of what business is looking for in the college student body of today,

tomorrow, and the future. This is the characteristic of an unsatiable desire for more knowledge, more information and more tools with which to do an even better job. In other words, the "perpetual student".

Your commencement exercises, signalize the attainment of a certain formal core of your education. The acceptance of your first position in business, signalizes the beginning of still another part of your education... that of learning to make the practical applications of the general principles in specific instances. With this blending of theory and practice through actual experience, you will soon realize that there is a constant and a continuing need for adult education.

In the field of business today there are three major business functions which are engaged in providing this type of continuing education with the end result of professional recognition. These are the fields of life insurance, public accounting, and the area which I represent, transportation. In the years to come, the personnel managers, purchasing agents, the marketing people and the other areas of business, will undoubtedly engage in the same type of program.

This is because of the need to constantly be cognizant of the changes which take place almost daily in our driving economy. The leaders of business recognize this fact and place importance on the need for their personnel to develop increased skills and knowledge in the use of the latest management techniques and tools.

In conclusion, let me leave with you the thoughts of a business man, offering advice to a group of college students:

"My sincere and honest advice to you is don't ever become 'grown up' in the sense that term is often used; strive to remain to your dying day nothing more than a student, and try to grow only in the sense of growing more brave, more curious, stronger in honest convictions and acts of courage, clearer in intellectual honesty, and firmer in integrity.

"I can assure you that the only people who stay young, who live longer, not necessarily in years, but in experience and accomplishments, are exclusively the people who insist on staying students—that is, people who, to their dying day are always studying, always learning, always, curious, always awake to and prepared for newer, better, broader ideas, concepts and horizons.

It is exclusively such young people who form that brilliant, irresistible vanguard that has always pushed and pulled and sometimes lead humanity to ever higher peaks of intellectual achievement."

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What is Reading?

•THE IMPORTANCE of reading in the school curriculum cannot be over emphasized. Yet do we really know what reading actually is. Consider for a moment the following statements:

Reading is... a two year old when she looked at her father reading the newspaper. She observed his glasses, his crossed legs, and his cigarette. With little effort she assumed the reading role of her father—mother's glasses, a newspaper, cigarette from her father's pack, an imitation of her father's sitting position. She was reading.

... a two year old who chose a book from her library, took it to an adult and said, "Talk to the book." She shared a reading experience with an adult friend.

... a four year old with her sister's book as she repeated the words, "Reading, reading, reading." She was reading.

... is just like a sport to me. "Last year I was the best writer in my room but I hated reading. Now it is just like a sport to me."

... "Man, is this a good book! May I read this to Miss _____?" He read to every visitor who came to the classroom that day.

... "I just get so excited when I see so many books that I want to read them all."

... "I like to choose my own books because I don't always like the books everybody else reads."

... "I brought this book from the library because I thought _____ might like to read it because he lived in Texas once. I didn't like it because it was too slow but he might like it."

... "I like to read when I know most of the words."

... "May I take your poem book home? I want to read 'New Shoes' to my brother." (*Time for Poetry*)

... "May I say 'Did You Feed My Cow' to the music teacher when she comes in?" The poem was in a poetry book, *Did You Feed My Cow*, which one of the children had selected from the city library.

... "I want to read this book to the other children. It is real funny." The book was *Bennet Cerf's Book of Laughs*.

... "I just like to read stories about the old days. When I read something it just makes me want to read more about it."

... one child asking another to "read this book to me."

... one child choosing to read three books about Daniel Boone.

... one child and a teacher communicating about a story or book.

... most any time of day in most any part of the room, was an observation made by a participating student.

... three girls reading a fairy tale together and then making their own book of it.

... small groups of children scattered about the classroom reading a book together, talking about a book, or just sitting side by side each reading his own book silently.

... children choosing books to read because "I like Miriam E. Mason books to read."

... children writing to and receiving letters from their favorite authors.

... children using books of their choice to learn the basic reading skills.

... children showing progress in reading according to a standardized reading test.

... grade levels made by children according to standardized tests.

From these several examples one might conclude that reading is many things. The determining factors which define reading are the purposes for which it is done and the way in which it affects the behavior of the reader.

Children have learned to read in Dame Schools, Church Schools, and public schools.

Children have learned to read in Spanish, French, German, Russian, Japanese, Chinese, and in any language of their culture.

Children have learned to read from left to right of the page and from top to bottom.

For a period of twenty years or more children have learned to read from basal readers which seemed to be written so much closer to the experiences of the children than the Bible or McGuffey reader. They almost literally became the classroom teacher's Bible, and for a very good reason too. For each grade level there was a teacher's manual accompanying the text with day by day instructions. After each book was completed, a test based on the skills taught from the manual was administered. If the day by day instruction were followed, the teacher was sure to get the right distribu-

tion from the test results. If the teacher had done an especially good job of following the manual, the test results on standardized tests might be equally as good since many of them are based on content of basal readers.

Let the reader of this article refer to some of the previous examples of what reading is. He will immediately see that reading is not always developed from the basal reader with the manual as a guide.

How, then, can it be taught? It would be a simple matter to answer thus, "The individualized reading method can be used." However, since there seems to be some confusion as to the full meaning of the term, individualized reading, perhaps a detailed explanation is due.

Individualized reading cannot be confused with individual attention, nor can it be confused with developmental reading, nor can it be confused with remedial reading, nor can it be confused with recreational reading.

Individualized reading is *not* a teacher providing each child with a packet of material which *he* or *she* thinks that the child can master.

Individualized reading is not providing each child with a basal reader which a teacher *believes* is on the child's level. Individualized reading is not taking a child through the paces of the preceding grade level because he "didn't get it."

Individualized reading is not recreational reading in which a child might choose any book he wants providing he has done his assigned work in the basal reader.

Individualized reading is not a small group of children holding the same basal reader as they sit in the front of the room around the classroom teacher.

What, then, is individualized reading since it is *not* so many things. First, it must be understood that individualized reading is based on the theory of self-selection and self-pacing. So it seems that those two terms must be defined.

Self-selection is achieved when a child selects his own book to read. Of course if a child is to select a book, he must of necessity have a wide range of interests and a goodly number of books from which to choose. Most authorities who discuss the number and kinds of materials suggest that there must be from three to five times as many books as there are children in the classroom. Veatch suggested that there should be three times as many different titled books as there are children in the classroom, but five times the number of children is better.³

Self-pacing is rather self-explanatory in that it means children choose books which they can read and a subject in which they are interested. Before the question "what if a child continues to read material that is too easy for him?" becomes unnecessarily disconcerting, it be wise to recall some of the natural developments of a normally maturing child.

1. No child lies on his back forever unless he cannot do otherwise.
2. No child moves about on his knees forever unless he cannot do otherwise.
3. No child toddles forever unless he cannot do otherwise.
4. No child eats with his fingers forever unless he cannot do otherwise.
5. No child communicates forever by pointing unless he cannot do otherwise.
6. No child chooses to read: day by day, week by week, etc.
Oh! Oh! Oh!
Look! Look! Look
See! See! See!
unless he cannot do otherwise.

However, Doctor Olson has said that one does not have to borrow from other fields to show that teachers may use the principles of self-pacing successfully to help a child learn to read. He has said that self-pacing has back of it a psychology of motivation and that children will continue to thrive if success is within their grasp.¹

Interest and self, then, are quite closely related. According to one author the closer interest is to self the more intensive one's interest becomes. Interest then leads to motivation. Intelligence and interest interact with these personal factors and thus a motivation is created. Books which can be read fluently and easily seem to be necessary to stimulate interest and children seem to be the most accurate judges as to which books fit their particular interests and needs.²

It was also stated that interests are not all predetermined.² It would seem to follow that opportunities must be provided which will tend to develop interests and make them more intense. The teacher, therefore, becomes the helper, the provider of materials, and experiences, and the encourager.

Individualized reading based on the two principles just defined, self-selection and self-pacing, with self-interest becoming the motivating factor was in an experimental stage with a second and third grade during the years 1959 and 1960. Ten children were enrolled in the laboratory school for the full two-year period. They experienced an uninterrupted two years of reading based on self-selection and self-pacing.

There were as many as one hundred to one hundred fifty books other than the basal readers from which the

children chose. Included in the selection were picture books, beginning to read books, and reading levels extending through the fourth, fifth, and sixth grades. There were books about real people, imaginative people, books about home and family life, books about life in the early days beginning with cave men, books of science, and nonsense books which were just good fun to read.

Many of these books came from the school library and were selected by the children and the classroom teacher with the help of the librarian. The children supplemented this assortment by visiting the city library and selecting books of their choice there. They were very eager to bring them to school and to share them with one another.

Three-tiered bookshelves were designed to fit flat against the walls under the bulletin boards and the windows around the classroom. The books were attractively displayed so that the entire front cover of the book could be seen. The books so arranged became an open and constant invitation for children to read. With such an arrangement, there soon developed a continuous communication between the children and books.

Another major part of the program which Veatch discussed was also in progress. Systematic instruction in the basic reading skills was based on the content and material which the children were reading as it was related to their needs. Therefore it became necessary to have regular reading conferences with the individual children. During this conference individual needs of the children were noted. Group instruction in the basic skills grew out of the needs that were evidenced while individual conferences were in progress. Materials from several different commercial workbooks were used to supplement the teachings of basic reading skills. Records kept by both the teacher and children were a follow-up of the conferences.

Oral reading which Veatch also considered essential to a good reading program was done in audience situations.³ Sometimes an entire book or story was read. Very often a book was shared by reading the most interesting, funny or exciting part. Sometimes two or three children enjoyed reading together. A child might ask a friend to read to him. In still other situations, children read aloud to share bits of information. Some read to children in other classrooms.

Each child grew at his own rate but he was encouraged to grow. Some children seemed to reach a level and remain there for some time. Others grew slowly but steadily. There were others who grew rapidly after a seemingly long period of little or no progress. Tests showed that for the most part growth in reading was more rapid during the second year of the program.

Reading Achievement Tests were administered in May 1959 and 1960. In May 1959 according to the SRA test the grade levels ranged from 2.0 to 5.9 with an average grade level in May for the second grade being 3.0. In May 1960, the range in grade levels was from 3.0 to 5.8 with an average grade level of 4.4. This indicates that there was an average gain in grade level within the one year period of one year and four months. It seems that the significant difference in the grade levels at the end of the two years is that all but two children in the third grade were reading on fourth or fifth grade levels. At the end of the second grade there were still seven of the ten reading somewhere within the second grade level. It also seems significant that the oldest and youngest made approximately the same gain in grade level during the two year period. They made three years and two months and three years and three months gain respectively.

The youngest child was still in the very active play stage during the second grade. School was very confining for him. He seemed to need time to grow and all indications seemed to be that he had a good background of experiences which was an adequate reading readiness in both the second and third grades.

According to the person who administered the Binet to the oldest child, his slow responses to questions was the determining factor in his I.Q. of 88. He nearly always responded correctly but just seconds too late. During the achievement test in the second grade he did not have ample time to complete all areas of the test in the third grade.

One of the most significant results of this two year experiment could not be measured in terms of standardized test scores. Only observation and personal records could determine the interest children showed in social studies and science. If one is doubtful as to the discrimination and judgment children use in selecting books one has only to look at the following list. Each book was read by two or more children. Many of the books were used as resource books for an entire group project in social studies or science.

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Miles R. Melver

Digest of a Thesis

Mclver, Miles R. *The Personality of Educable Mentally Retarded Children as Compared to a General Child Population*. July, 1961. Pp. vi+62. Series I, No. 813.

Committee: Dr. Rutherford B. Porter, Chairman; Dr. Charles Hardaway, Dr. Carlos Watson.

Problem: The purpose of this survey was to describe the personality of the mentally retarded child in comparison to that of the cross section of the normal population of children of approximately the same age range.

Method: The Children's Personality Questionnaire, the "CPQ" was administered to 158 educable mentally retarded students attending special classes for the mentally retarded in six Indiana Public Schools. The mean raw scores made on the test by the 158 mentally retarded students were compared to the standardized norms of the test.

Findings. The data indicated that mentally retarded girls differed significantly from the normal population of girls on seven of the fourteen dimensions of personality on which the comparison was based.

In terms of letter designations used by psychologists to identify personality dimensions, educable mentally retarded girls scored higher than the normal population of girls on D, N, and O. They scored lower than the normal population of girls on B, E, H, and Q₃.

The data indicated educable mentally retarded boys differed significantly from the normal population of boys on nine of the fourteen dimensions of personality. When compared to the normal population of boys, educable mentally retarded boys scored higher on personality dimensions H, J, and N; they scored lower on personality dimensions A, B, C, F, G, and Q₃.

The data revealed that educable mentally retarded boys and girls differed more from the normal population of boys and girls on intelligence than on any other personality dimension.

Excepting intelligence, which was controlled in this project, the most universal divergence of educable mentally retarded children from normal children was on dimension N. They scored high on dimension N.

Educable mentally retarded boys were found to be less well adjusted than educable mentally retarded girls.

TEACHER'S MEETING A CENTURY AGO (Continued from Page 72)

Teachers during these years were encouraged to improve their students' absence and tardiness records. Without compulsory attendance laws or truant officers, teachers and administrators continually sought ways to keep children in school. Parental indifference didn't help the problem. Students attended school better in the early days of the week and in the early weeks of the term. In 1870 Wiley spoke before the institute stressing the necessity of making an attractive and interesting program for Fridays so that students would attend that day. He repeated this same message later in the year when attendance lagged. Three years later when thirty-six pupils quit in one month, Supt. Wiley told the faculty with alarm that they should do the following: (1) Make their teaching practical and fascinating, (2) Let their conduct as teachers be so noble and true that the children would be delighted to be their associates, (3) Visit the parents and show them that they were interested in the welfare of their children, (4) Consider every task an honor and no burden too great in maintaining the Public Schools of Terre Haute.

Tardy charts were kept for students and teachers. Students after three late arrivals in the same week were suspended. Teachers were not suspended, but each month the institute secretary reported the names of the dilatory ones to the whole group. The building principals turned in not only the names of tardy staff members, but the exact number of times and minutes late during the month. Ten minutes late was considered extreme because most "Ten O'clock Pedagogues" clocked in four or five minutes late. Some were just a minute late. One bad report indicated that out of the sixty-two members, twenty-five had been tardy.

Usually only six or seven names made this monthly infamous list. Miss Anna Perry, whose name was frequently on the list, must have cringed one month under the stares of her punctual colleagues when the Secretary reported her late four times for a total of forty minutes. (Perhaps her principal stood too close to the front door during the morning check-in. Any unusual report brought words of admonition from the Superintendent.

These early Terre Haute teachers were concerned with more than the 3 R's and administrative detail. This sample list of other institute topics demonstrates their diverse interests: "How to Teach Dull Pupils," "Advantages of Studying Languages," "Education as a Means of Self-Control," "The Teacher's Toilet," "What Shall We Do With Our Boys?" "How to Present Oral Lessons in Botany," "Different Modes of Burial in Different Countries," "The Camel in Its Native Land," "Of What Benefit to the United States Is the Purchase of Alaska?" and "This County in the Year 2000 A.D."

After many talks, the faculty divided into elementary and secondary groups or into small groups and discussed the topic for an hour and then reassembled for final summaries. "How to Detect and Prevent Imperfect Lessons," and "What Methods Are Most Effective With Children at Each Grade Level?" indicate the type of topic handled this way.

The "Minutes" fail to mention how teachers were selected for the programs. At the end of each meeting the next program was announced. Some teachers appeared more frequently, but never consecutively unless

asked to continue their instruction in special areas. Miss Beach, like many of her versatile colleagues, lectured one month on "Why Is It That Upon Leaving School So Many Pupils Are Unable To Put Their Knowledge Into Successful Practice?" and two months later conducted a class exercise in weights.

Previous comments indicate different educational philosophies. One of the most interesting bits of evolving educational philosophy, stressed in speaker's comments through the 1867-1876 institutes, insisted that there were two kinds of teaching, mechanical and functional (creative). One unnamed teacher best delineated this distinction.

"Methods in teaching are merely the outward form while instruction is the substance. It is the shell while instruction is the kernel. But the kernel determines the form of the shell, not the shell that of the kernel. If we aim to instruct the child so as to develop all his powers, a different method will be required than if we aim simply to communicate facts or load the memory. The ability to repeat terms is not coexistent with the ability to interpret them. And it is quite possible that scholars may be taught all the classifications of civics, without having the slightest understanding of their meaning. Dry grammatical rules will never teach pupils the correct method of speaking or writing the English language. It is the reduction of these rules to practice that is useful. If the teacher aims to teach the book, a different method should be pursued.¹⁸

Comparison of the reports of these meetings with those of today indicates that some early pedagogical practices have been discarded, others have been revived, and some have survived for almost a century.

¹Bound and stored in Vault of Administration Building, Terre Haute Schools, Terre Haute, Indiana.

²Guest lecturers were visiting educators, or staff members from Indiana State Normal.

³"Minutes," p. 2.

⁴W. H. Wiley, **Public Schools in Terre Haute: 100 Years of History**, Vol. I (Bound privately, no publisher. References in the book were checked and this volume was written in 1900) p. 90.

⁵"Minutes," October 10, 1868, p. 57.

⁶First names are not given for many of the teachers.

⁷Teachers rated and ranked all students in deportment on a 240 point maximum scale per month.

⁸"Minutes," p. 113.

⁹*Ibid.*, November 14, 1874, p. 224.

¹⁰*Ibid.*, March 12, 1870, p. 96.

¹¹*Ibid.*, September 14, 1867, p. 2.

¹²Many demonstrations were based on texts used in Terre Haute at that time. (*Ray's Arithmetic, McGuffey's Spelling Book, Butler's English Grammar, Davie's Algebra, Mitchell's Geography, Cuter's Physiology, Wilson's Outlines of History.*)

¹³"Minutes," January 9, 1869, p. 69.

¹⁴September 1868, no pagination cited.

¹⁵"Minutes," November 9, 1867, p. 27.

¹⁶*Ibid.*, p. 178.

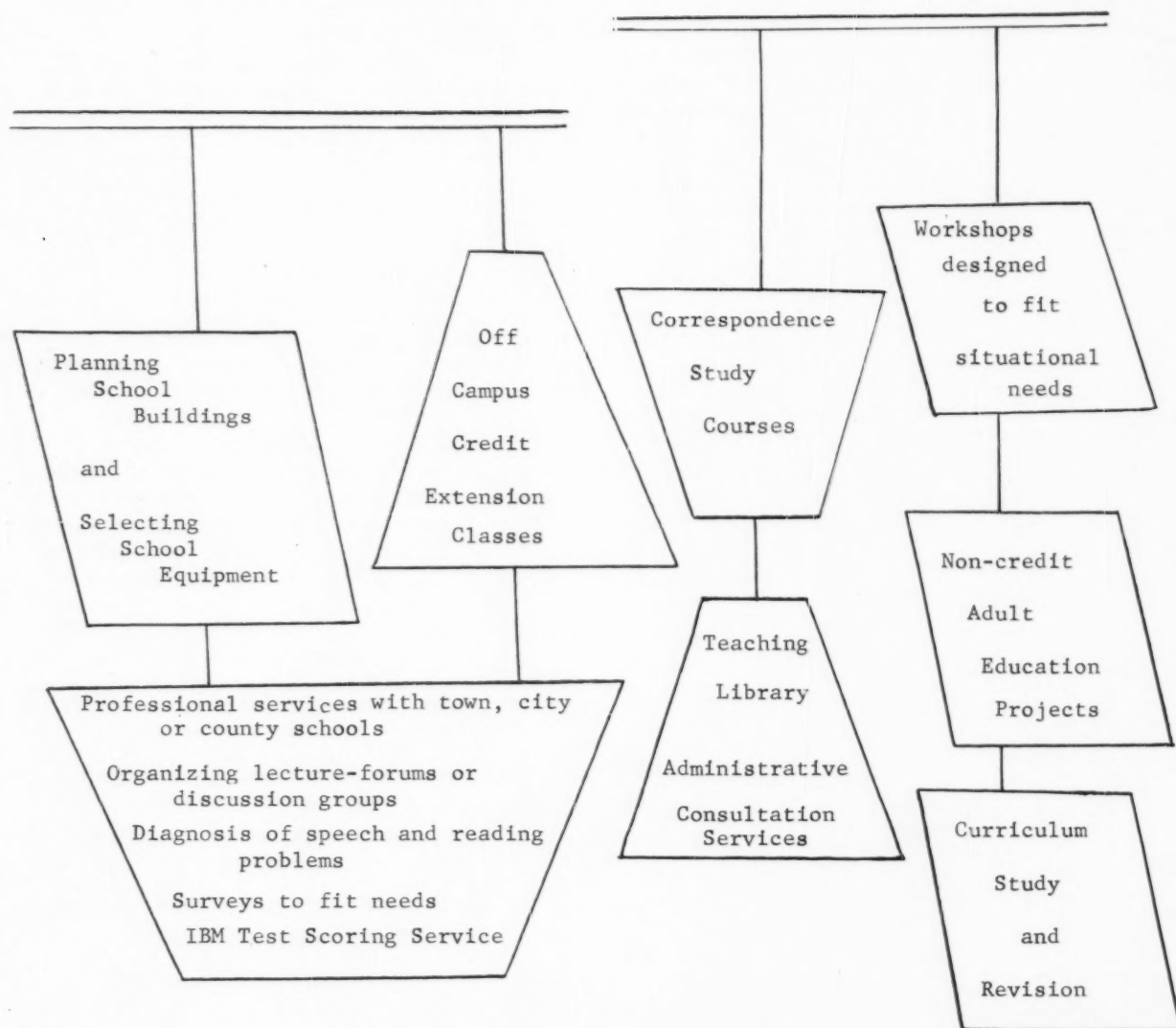
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¹⁸"Minutes," Speaker unknown, "High Aims in Teaching," p. 51.

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